REMARKS

Claims 26-46 are pending. The originally filed claims have been replaced with the new claims added in this paper, which are drawn to the elected group of claims and which are patenably definable over the invention over the references of record.

Reconsideration of the application is respectfully requested for the following reasons.

In the Office Action, the Examiner rejected claims 1-14 and 18-25 under 35 USC § 103(a) over the conventional method disclosed on pages 2-3 of Applicant's specification and the Wernek article. It is respectfully submitted that this rejection has been rendered moot by the cancellation of claims 1-14 and 18-25. Applicant further submits that the newly added claims are patentably distinguishable from the cited combination.

Claim 26 recites a method for automatically measuring EIRP power. In rejecting the original claims, the Examiner took the position that the conventional method disclosed on pages 2-3 of the specification includes many features of the claimed invention, albeit performed manually. However, claim 26 recites receiving a request for an EIRP measurement of a customer carrier signal and then activating cockpit program and a power program.

The cockpit program (a) selects a satellite and transponder with an associated polarization corresponding to the customer carrier signal from a database, (b) selects a reference carrier signal based on at least one of the selected satellite and transponder, (c) sets a spectrum analyzer to one of a resolution or video bandwidth based on a predetermined code corresponding to the customer carrier signal, and (d) measures a level of the reference carrier signal and a level and bandwidth of the carrier signal within the resolution or video bandwidth based on the settings in (c). The

conventional method disclosed in Applicant's specification does not use a cockpit program of this type, nor does it perform any of its attendant functions as set forth in (a) - (d).

The power program calculates an EIRP measurement of the customer carrier signal based on a difference between the measured reference carrier signal level and the measured customer carrier signal level. The conventional method disclosed in Applicant's specification does not use a power program of this type, nor does it perform any of its functions.

To make up for the deficiencies of the conventional method, the Wernek article was cited. Wernek discloses a computer system by Comsat World Systems which uses a program to automatically compute EIRP power for a satellite carrier signal. However, Wernek does not teach or suggest the cockpit program and its functions (a) - (d) recited in claim 26, i.e., the Comsat system does not use a program which (a) selects a satellite and transponder with an associated polarization corresponding to the customer carrier signal from a database, (b) selects a reference carrier signal based on at least one of the selected satellite and transponder, (c) sets a spectrum analyzer to one of a resolution or video bandwidth based on a predetermined code corresponding to the customer carrier signal, and (d) measures a level of the reference carrier signal and a level and bandwidth of the carrier signal within the resolution or video bandwidth based on the settings in (c).

The predetermined code and reference carrier signal features are especially advantageous features of the invention.The predetermined code allows the cockpit program to automatically gain access to and then control the spectrum analyzer, a satellite receiver, bandwidth, and other settings needed to measure power of a modulated carrier signal. (See, e.g., page 6, lines 4-9 of

the specification, and again on page 10, lines 5-9). Neither the Comsat system nor the conventional method uses a code of this type.

The reference carrier signal also allows the invention to achieve improved performance. As noted by the Inventor, a main difference between the claimed invention and the Comsat system is that Comsat's system requires the entire downlink chain to be calibrated before a power measurement can be taken. The invention computes EIRP power independent from this calibration through the use of a reference carrier:

> "A TOC can transmit a reference signal to a transponder and measure any carrier in that transponder, then the TOC can change the frequency of that reference signal to another transponder and perform measurements in that transponder. There is no measurement or calibration of antenna gain, path loss, waveguide losses, cable losses, etc. all comprising the downlink chain, which over time can change, and is required by the Comsat system." (Inventor's Comments made on January 28, 2005).

As the Inventor makes clear, use of the reference signal recited in claim 26 allows the claimed invention to achieve improved performance over Comsat's system, both in terms of computational overhead and improved efficiency through faster signal processing.

Claim 26 also recites a power program which computes power based on the reference signal, e.g., the power program calculates an EIRP measurement of the customer carrier signal based on a difference between the measured reference carrier signal level and the measured customer carrier signal level. The Comsat system does not have a program of this type.

Based on at least these differences, it is respectfully submitted that claim 26 is allowable over a conventional method-Wernek combination.

Claim 27 recites that the cockpit program performs (d) by automatically activating delta marker, adjusting the delta marker to a predetermined point on one side of the customer carrier signal, and storing the customer carrier signal in a trace A. In the Office Action, the Examiner appeared to take the position that these steps were performed in the conventional method disclosed in the specification. However, this is not the case. The disclosed conventional method only details some fundamental steps used to compute EIRP manually. Neither this conventional method nor the Wernek article teaches or suggests use of a delta marker or any of the other features recited in claim 27 relating to the cockpit program and its operation in computing EIRP power.

Claim 28 recites recites additional features of the delta marker, i.e., wherein the delta marker is established at a peak amplitude of the customer carrier signal, after which the delta marker function is then activated. None of these features are taught or suggested by the conventional method and Wernek article.

Claim 29 recites further functions of the cockpit program, i.e., activates a trace B, dials in a frequency of the reference carrier signal at 10 dbw, places the reference carrier signal in direct relation to the delta marker on the customer carrier signal, and reads and records a 3 db bandwidth and amplitude of the customer carrier signal. None of these features are taught or suggested by the conventional method and Wernek article.

Claim 30 recites that the power program calculates the EIRP measurement by applying a modulated-data-carrier formula which computes a correction factor (CF) related to a power of an unmodulated carrier and adding the correction factor to the difference between the measured

reference carrier signal level and the measured customer carrier signal level. None of these features are taught or suggested by the conventional method and Wernek article.

Claim 31 recites that the modulated-data-carrier formula is CF = 10*Log (MB/RB), where MB is the measured bandwidth of the customer carrier signal and RB is the resolution bandwidth. None of these features are taught or suggested by the conventional method and Wernek article.

Claim 32 recites that the cockpit program performs (d) by saving the customer carrier signal in a first register, controlling maximum hold on the customer carrier signal to smooth out at least one of trace A and trace B, saving the customer carrier signal in a second register subsequent to the controlling step, controlling performance of a peak search on the customer carrier signal and determining a peak amplitude, activating the delta marker on the peak amplitude and moving the marker 3db below peak on one side, moving the delta marker to another side of the peak amplitude at 3 db down, outputting a 3 db bandwidth, calculating the correction factor (CF) by applying said modulated-data-carrier formula, recalling the customer carrier signal from the second register, controlling performance of a peak search on the recalled customer carrier signal, storing the result in trace A, and activating the delta marker, clearing/write trace B, call the reference carrier for the transponder, outputting the difference between the measured reference carrier signal level and the modulated customer carrier signal level, and adding the correction factor and said difference to compute the EIRP measurement. None of these features are taught or suggested by the conventional method and Wernek article.

Claim 33 recites that the reference carrier signal is a fixed continuous wave carrier at a power level of 10 dbw at a predetermined frequency. None of these features are taught or suggested by the conventional method and Wernek article.

Claim 34 recites that the cockpit program sets the spectrum analyzer to a video bandwidth based on said predetermined code, and wherein the video bandwidth is selected to filter the customer carrier signal to a desired view. None of these features are taught or suggested by the conventional method and Wernek article.

Claim 35 recites that the power program calculates the EIRP measurement independent of a calibration of a downlink corresponding to the customer carrier signal. None of these features are taught or suggested by the conventional method and Wernek article.

Claim 36 recites features similar to those which patentably distinguish claim 26 from a conventional method-Wernek article combination. Applicant submits that claim 36 is therefore also allowable, along with claimms 37-46 which further define claim 36 in ways not taught or suggested by the conventional method and Wernek article.

Reconsideration and withdrawal of all the rejections and objections made by the Examiner is hereby respectfully requested.

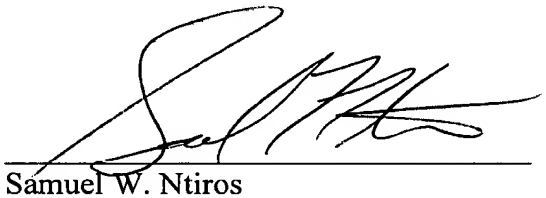
In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of the application is respectfully requested.

Should the Examiner believe that further amendments are necessary to place the application in condition for allowance, or if the Examiner believes that a personal interview would be advantageous in order to more expeditiously resolve any remaining issues, the

Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

To the extent necessary, Applicants petition for an extension of time under 37 C.F.R. §1.136. Please charge any shortage in fees due in connection with this application, including extension of time fees, to Deposit Account No. 16-0607 (Attorney Docket No. HI-020) and credit any excess fees to the same Deposit Account.

Respectfully submitted,



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